

Amherst's Old Landfill and the Proposed Solar Facility

Misconceptions vs. Facts

Misconception #1: Opposition from neighbors surrounding the Old Landfill in Amherst is based on "NIMBY" concerns of noise and aesthetics.

Fact: The clay cap, intended to protect the toxic contents of the landfill from leaching into the groundwater is compromised and no longer functions adequately to protect humans, wildlife or the environment. At the time the landfill closed in the mid 1980's, standards called for a 12-inch clay cap, but that requirement was negotiated by the Town down to an 8-inch cap "in order to reduce costs of the closure project." According to the Department of Environmental Protection (DEP), the cap is **only 4 inches thick** in some places, and it's not even clay, it is just silt and sand. The standard depth for clay layer today is 18 inches.

The cap is designed to prevent water from percolating into the landfill and leaking into the surrounding groundwater. However, DEP documents show that the cap is currently **leaking at a rate of 940 gallons per acre per day**. According to 2007 and 2010 Department of Environmental Protection (DEP) reports, the cap is 150 times more permeable than the original DEP requirements specified and 1,500 times more than current standards mandate.

Misconception #2: The Old Landfill site can safely be used for a solar facility if the DEP deems it safe and grants a special permit.

Fact: By orders of magnitude, the planned permanent installation is larger, heavier and completely prevents maintenance of the landfill site unlike previously considered uses of the site, e.g., soccer fields, which the DEP has deemed prohibitively threatening to the cap. The landfill was not considered safe by DEP for recreational use in 1988 and 2004, and conditions have deteriorated since then. The 1988 report on the environmental effects of using the Old Amherst Landfill for recreational activities, done for DEP by Meta Systems Inc., states that **"the present landfill cap is relatively thin and may be susceptible to serious damage from routine foot traffic or maintenance activities."** A 2004 letter from Amherst Superintendant of Public Works, Guilford Mooring, to the DEP regarding the Old Amherst Landfill states: "Any active recreation use on the site would eventually require a bathroom/concession/storage facility. **This facility would more than likely penetrate the cap or require alteration.**"

Misconception #3: The solar facility will provide free electricity for the Town.

Fact: The electricity will not be free. It will be supplied to the WMECO grid, and the Town would buy electricity back from BlueWave at a fixed price. Any future cost savings are estimates made by the Town, based on projections of the increase in the cost of electricity in the future. These savings are projections and, even if accurate, most of the savings would not be realized by the Town for 15-20 years.

The generated electricity would provide only 50 to 60% of the electricity needs of the municipal buildings at best.

Misconception #4: BlueWave will be around for years to oversee any problems that develop with the old landfill site.

Fact: The Town of Amherst is responsible for the costs and risks of maintaining the site and protecting the citizens of the Town. BlueWave is an investment company, organized to secure the initial contract and sell shares to longer-term investors whose return is comprised of tax credits/subsidies, potential future dividends and profit-sharing. Once the equipment is installed, BlueWave will not be responsible for the maintenance, which will be done by another company. Any problems with the landfill cap or problems with water contamination would not fall under BlueWave's responsibility. The BlueWave proposal does not provide an insurance bond to cover risks associated with the project. The proposal states that if a bond or insurance is required, it "would be reflected in a **higher electricity cost** to the Town." In the worst-case scenario, if the clay cap is damaged and the water supply is contaminated, the Town would be financially responsible for the environmental cleanup.

Misconception #5: The project requires no decommissioning bond or insurance because of the promise there will be profit from selling the solar panels for reuse or the salvage of materials at the end of the project's 30-year life.

Fact: Financial recovery from the re-sale of 2012 equipment in 2042 is risky. Given that a solar panel's generation capacity decreases over time, and that today's technology will be obsolete in 30 years, it is questionable if anybody may want to buy these 30-year-old panels. It is very hard to predict salvage values of materials 30 years into the future. BlueWave is wise to pass this risk to the Town.

Misconception #6: If you are a supporter of solar energy and believe solar power is an important part of meeting our energy needs, you must support the old landfill solar facility.

Fact: There is widespread support for a solar facility developed responsibly and located on an appropriate site. De-stabilizing a toxic landfill in the middle of a residential area and above aquifers feeding the drinking water supply, however, is a risk the Town must consider very carefully. A solar facility situated on an environmentally fragile site is an environmental disaster waiting to happen. Responsibly bringing a solar facility to Amherst means we must investigate other possible sites in Town.

Misconception #7: Placing a large solar installation on the old landfill would make Amherst "more green."

Fact: The Town of Amherst already has an environmental problem in this location and the proposed project could very well make it worse. It would certainly make monitoring difficult and remediation impossible, or impossibly expensive.

The old landfill is located in a primary aquifer recharge area and is now leaching contaminants into the groundwater. Water around the Old Landfill including Gull Pond, the KC Trail and Hop Brook wetlands is already contaminated with lead, mercury, arsenic and cyanide from the landfill plume, as shown in DEP documents, and it is located only 100 yards away from the Lawrence Water Protection area for the Town's drinking water wells.

Installing over a thousand tons of equipment on top of the landfill is likely to accelerate the problem and impede future remediation efforts.

Misconception #8: Many towns in Massachusetts and across the nation are choosing to place solar facilities on their landfills so it must be safe and Amherst cannot afford to miss this opportunity.

Fact: In April 2011, the town of Longmeadow, MA, decided against a large-scale solar facility on their landfill. Landfills across the state vary in the way they were initially closed, the condition of whatever capping system was used and whether they are lined or unlined. They also vary by how close to residential areas and sources of water they are located. When landfills are lined, it reduces the potential of toxic chemicals leaching into the surrounding ground water. Many older landfills, like Amherst's Old Landfill, are unlined. Amherst's Old Landfill has three more strikes against it: 1) it has a clay cap that has deteriorated to only 4 inches in many places; 2) it is located near an aquifer (Lawrence Swamp) from which Amherst draws much of its drinking water; and 3) it is adjacent to a residential area. All of which makes it an extremely fragile environmental site. Most landfills have larger clay caps and some have a concrete or gravel barrier to protect the clay cap from being damaged and to allow the cap to prevent the absorption of water which would carry toxic chemicals into nearby water sources.

According to DEP, the Old Amherst Landfill does not meet the standards set at the time of closing in the 1980's and it is much farther below 2011 standards. According to DEP documents, the current cap is leaking 150 times the allowable rate. Amherst cannot afford the risk of locating a solar array on this fragile environmental site.

Sources: DEP Interim and Final Comprehensive Site Assessments, BlueWave Capital Old Landfill Reuse Proposal, 2004 Letter to DEP by Mr. Mooring, Environmental Effects Study for Use of The Old Landfill for Recreational Activities, Ground Water Management Plan for the Hop Brook Drainage Basin

THIS PROJECT IS ON THE FAST TRACK. A THIRTY-YEAR COMMITMENT DESERVES MORE THAN THREE MONTHS OF CONSIDERATION.

All the above quotes are taken from the BlueWave proposal (available on the Town's web site) and publicly available DEP documents.

For further information, please see ACRES Group website: www.acresgroup.org